

US EPA ARCHIVE DOCUMENT

Geographic Response Plans: Comparison and Recommendations

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Background: Use and Development of GRPs



What is a GRP?

A GRP is a site-specific strategy for the initial response to a spill of oil or oil products on water

What is the purpose of a GRP?

A GRP provides initial guidelines for responders in the event of spill, greatly reducing the time needed to make decisions about how to respond.

Why create GRPs?

A GRP gives responders the information they need to ensure that response to a spill is fast and effective while protecting sensitive resources threatened by the spill.

Development: Creation of GRPs

How are GRPs developed?

A GRP is the result of a planning process. Representatives from various levels of government, response groups, resource specialists, and industry work together to identify the best ways to minimize damage to sensitive natural, cultural, and economic resources.

Where are they developed?

Locations are identified based on the Presence of sensitive resources that could be adversely affected in places where the risk of a spill is significant. Natural conditions of the location affect choices, as well.



Development: Criteria

What resources are considered?

- Sensitive species and habitat
- Water intakes
- Culturally significant sites and landmarks
- Economic resources, such as marinas, fisheries, or parks
- Potential spill sources

What conditions are considered?

- River conditions
- Seasonal weather changes
- Accessibility of site
- Responder safety
- Shoreline sensitivity to oil



Comparison of Existing GRPs

Purpose of comparison

Many agencies and states have developed GRPs. Various approaches have been developed to present similar information. Comparing the various approaches is an effort to define 'minimum components' for GRP development. This comparison considers only inland response, coastal strategies are not included.

Comparing these approaches has shown that many elements are common to all, and could form the basis of a more uniform approach. This could provide a framework upon which existing GRPs can be shared, and could facilitate further strategy development.

USCG Western Lake Superior

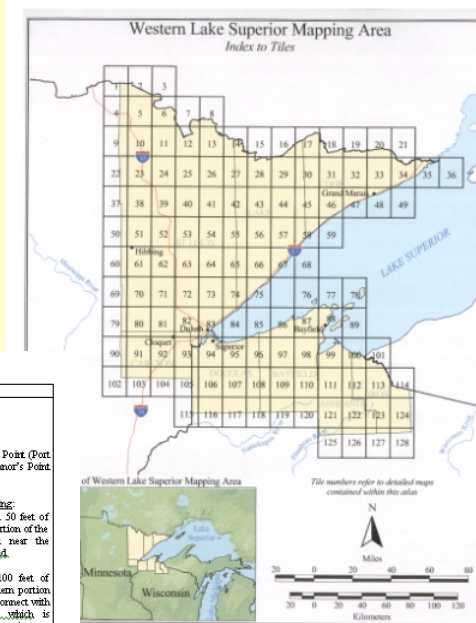
General

Strategies in a narrative format.

Additional useful information is included in other sections of the Area Contingency Plan.

Strategy contents:

- Boom length
- Sensitive resources present
- Site priority
- Accessibility, Staging
- Field visit details



DULUTH/SUPERIOR HARBOR (MINNESOTA & WISCONSIN)		
Tile or Map No. #	Location	Comments
#83 & #94	Duluth/Superior Harbor.	<p>Staging area:</p> <ul style="list-style-type: none"> • Park Point Launch • Lower Fort Landing • Power Squadron Dock • Under Elk Lake Bridge at Rice's Point (Port Authority, Duluth, MN) or Connor's Point (Superior, WI) <p>Key sensitive areas that need booming:</p> <ul style="list-style-type: none"> • Barker's Island. Need approx. 50 feet of boom near the southwestern portion of the island and approx. 200 feet near the southeastern portion of the island. • Hog Island. Need approx. 100 feet of boom deployed along the western portion of the island. This boom will connect with the Lakehead Pipeline dock, which is approx. the same distance away. Approx. 200 feet of boom deployed along the southeastern portion of the island. This boom will join with the Burlington Northern Ore dock approx. the same distance away. This enclosatory boom set-up will provide protection for sensitive local fish and wildlife areas. • Interstate Island. This island is between the central harbor and the St. Louis River and is considered a sensitive area due to migratory birds that inhabit it at various times of the year. Subvent boom probably would be the best protection strategy for this island and deflection boom to prevent impact of oil. <p>Harbor Collection Area: Consider setting deflection boom to guide the oil into the following areas:</p> <ul style="list-style-type: none"> • Deploy approx. 1000 feet of boom off the pier adjacent to Superior Fiber Products, Inc. This collection point is located north of the Cutler-Magner dock which is also a projection collection point.

4000-
Western Lake Superior Area Contingency Plan
November 2005

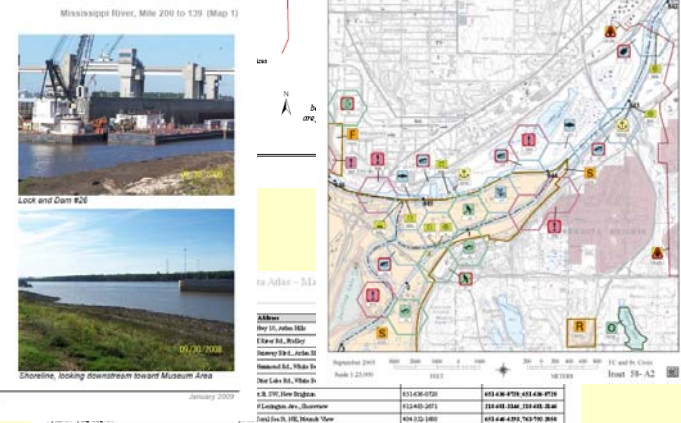
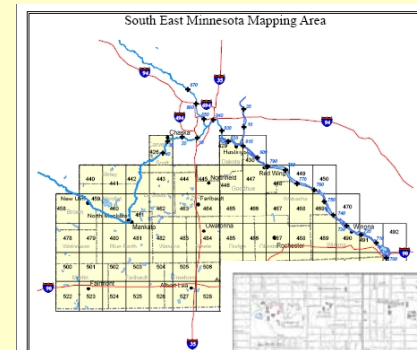
US EPA Region 5

General

Strategies in a tabular and database format.
 Supplement Sub-Area Contingency Plans
 Developed in tandem with Inland Sensitivity Atlas.
 Some developed as a stand-alone product.

Strategy contents:

- Boom length
- Sensitive resources present
- Latitude/Longitude
- Accessibility, Staging
- Emergency contacts
- Field visit details
- Link to general approaches
- Photos (some areas)



GOAL: Staging Area and boat launch site				
Site Number	Waterbody/ River Mile	Site Name		
2008	Mississippi River, 200.3 LOR	Mud Price Lock & Dam Great River Museum Area		
Strategy Type	Stream Length	Land Access	Boat Access	
Oth.	n/a	Y	N	
Strategy Implementation				
<p>Possible staging area at lock and dam and museum site could board a barge along the lock chamber. Contact Lock Master (815) 425-1713. Vrac truck could be loaded on a barge here.</p>				
Site Access				
<p>Access Lock and Dam from off Hwy 3, Great Rivers Museum Area is at the entry. The museum parking lot area could be used for boat access. See map.</p>				
<p>Latitude: 38.867027 Longitude: -90.144471</p>				

[illegible]^a 1 = Descriptive, 2 = Evaluative, 3 = Qualitative and Quantitative, 4 = Other.

US EPA Region 9

General

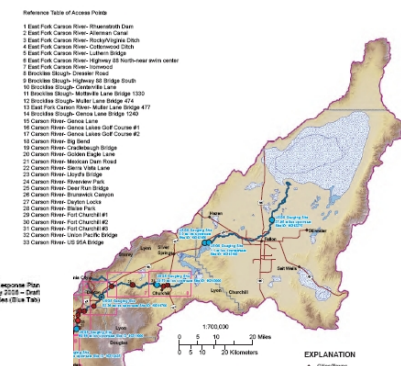
Strategies in a narrative format.

Additional useful information is included in other sections of the document.

Strategy contents:

- Boom length
- Sensitive resources present
- Site priority
- Accessibility
- USGS Quadrangle
- Field visit comments
- Photos (some areas)

Carson River Emergency Response Index Map



Site: West Walker River Site & WW12 - Topaz Lake Canal
(Photo taken from outflow pipe, looking downstream)

Site Rank: B

Sensitive Site: No

Directions to Site: From Minden/Gardnerville, take Highway 395 south to Topaz Lake. Just north of the Topaz Lake, turn east onto Topaz Park Road. Go 1.8 miles to the Topaz Lake County Park entrance. Continue 0.3 miles past the park entrance to a cement gate house. Past this gate house (0.1 miles) is a canal into which water from the Topaz Lake dam by-pass (underground pipeline) is received. This location is in Nevada.

Stream Width: 50 ft.

Boom Required: 200 ft. (minimum)

Site Strategy: There are multiple locations along the canal which could be used as booming locations. The canal runs very straight; however the banks are near vertical and unstable, which would complicate booming activities. The side-walls along the canal are up to 30 feet high.

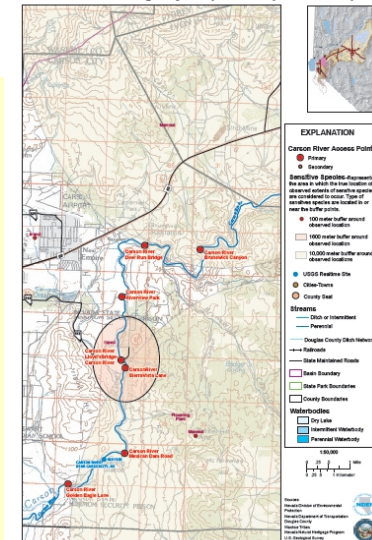
Comments: By-pass water from the Topaz Lake flows into a submerged drain, through an underground pipeline and empties into the Topaz Lake Canal, which essentially becomes a tributary to the West Walker River. There is a dirt road which follows the north side of canal for 1.5 miles. There are multiple locations along this canal which could be used as boom sites in the event that soil material was sucked into the Topaz Lake submerged drain (depending on the water level this drain may only draw from the bottom of the lake, or may form a toilet bowl effect and draw from the top of the lake).

USGS 7.5 min Quad: Topaz Lake

Coordinates: N 38 41.703 W 119 30.558

B-10

Carson River Emergency Response Map - Detail Map 5



G-12

US EPA Region 10 and Washington State

General

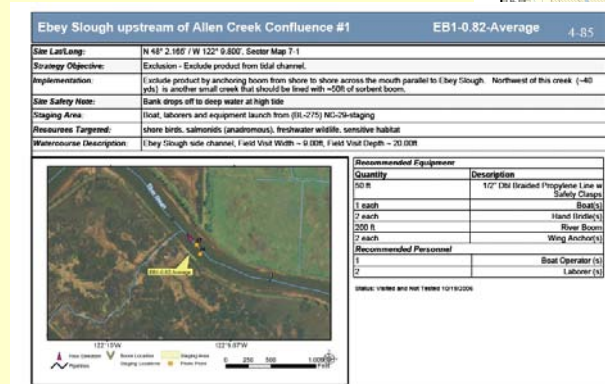
Strategies in tabular and database format.

Custom software interface.

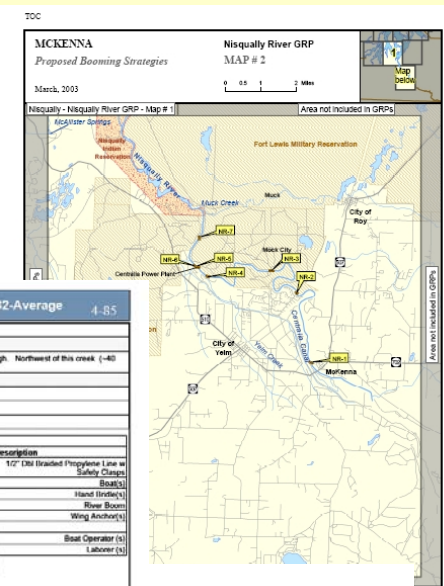
Additional useful information is included in the GRP for that basin.

Strategy contents:

- Boom length
- Sensitive resources present
- Site priority
- Accessibility, Staging
- Watercourse details
- Equipment recommendations
- Field visit details
- Latitude/Longitude



Snohomish (WRIA 7) GRP, Version 1.00



NISQUALLY RIVER GRP

See Strategies: Matrices

Staging Area	Site Access	Resources Protected
	Road leads down to site off of SR 507.	Downstream resources. Some portions of site are facility just upstream of McKeen.
	Steep bank incidental access to river, river flow also limits boating.	Poor - steep bank limits access to river, river flow also limits boating.
	Road access on both sides. 3 rope bridge provides redundancy on both banks.	Downstream resources.
	Private property/ agricultural land.	Private property/ agricultural land, by using boom.
		Sensitive riparian resources and habitat.

Recommendations for Minimum GRP Content

Purpose of Recommendations

An opportunity exists to pursue more consistency in how GRPs are presented and what information they convey. Recommending common approaches to developing and presenting response strategy information can provide a framework upon which further GRPs can be developed and shared.

The comparison of various approaches has revealed numerous elements shared by all. These provide the core information upon which to build a standard format for presenting GRPs. This 'minimum content' framework can be used to facilitate sharing of information as well as guide the development of new GRPs.

Recommended Basic Elements to Include in a Standard Format

Orientation:

- Overview map
- Map tiles

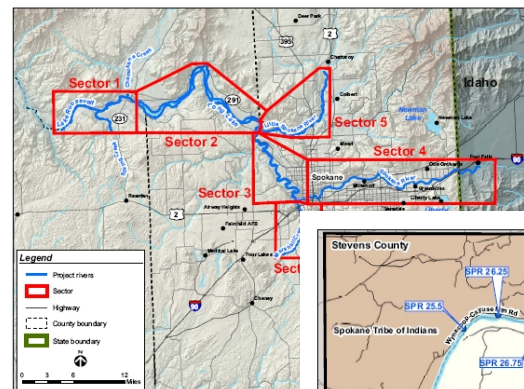


Figure 3-1. Vicinity map, Spokane River Geographic Response Plan.

Response Strategy:

- Detailed strategy description
- Directions and Location Description
- Boom requirements
- Resources to protect or consider
- Resource manager or trustee contact information

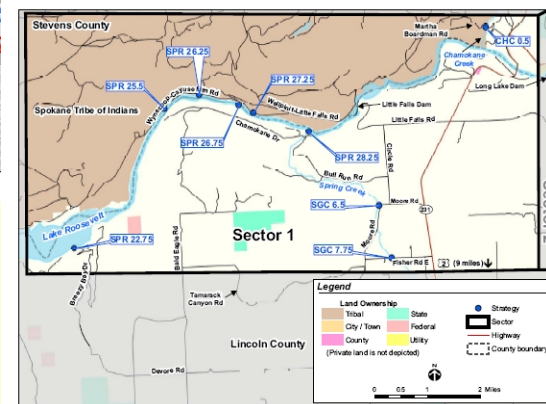


Figure 4a. Sector 1 (Strategies SPR 22.75 - SPR 28.25, SGC 6.5 - SGC 7.75, CHC 0.5) index map, Spokane River Geographic Response Plan.

Recommended Optional Elements to Include in a Standard Format

Orientation:

- Hyperlinks from Overview map to map tiles
- Hyperlinks from map tiles to strategies
- Display of sensitive resources and aerial imagery

Response Strategy:

- USGS quadrangle or reference map
- Nearest equipment cache
- Nearest staging area
- River or stream width and flow data
- Photographs of the site
- Relative site priority
- River miles

Further Developments

Data Structure

The recommendations for the content of GRPs are still a work in progress. One area that needs to be addressed is defining the structure of the data. While GRPs are developed with many common elements, it may prove difficult to prescribe an optimal data structure. Different agencies will have different priorities, and may have varied ideas about what or how much should be included in any particular element. Because of this, data definitions will need to be flexible. To be useful for new GRP developers, it will be beneficial to provide context to help users understand why certain data have been defined the way they are.

Conclusions

Content

There are enough common elements within the various GRPs to develop a standardized list of contents. The recommended format provides those developing GRPs with a framework to guide their efforts. Crucial, core information must be included for a strategy to be viable. Additional information that is useful, but that may not be available for all areas, should also be included.

Presentation

Individual agencies should decide how to best present the information to their users. At base, content must be provided so that key information is easily read. A balance should be found between the amount of information shown and how succinctly it is presented.

Questions / Comments

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